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**CONESTOGA-ROVERS
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July 18, 2008

Reference No. 006029-50

Mr. Regan S. Williams
State Project Coordinator
Ohio EPA
Division of Emergency & Remedial Response
2110 East Aurora Road
Twinsburg, Ohio 44087

Dear Mr. Williams:

Re: April 2008 Groundwater Monitoring Report
Summit National Superfund Site
Deerfield, Ohio

In accordance with the Consent Decree and Statement of Work (SOW) requirements for the Summit National Superfund Site (Site) in Deerfield, Ohio, the Summit National Facility Trust (SNFT) herewith submits two copies of the results of the April 2008 semi-annual groundwater monitoring event at the Site, in accordance with the revised groundwater monitoring schedule provided in the August 2006 Groundwater Monitoring Report (CRA, January 19, 2007), as amended in the responses to the Ohio Environmental Protection Agency (OEPA) April 17, 2007 comments (CRA, July 23, 2007). The groundwater sampling was conducted on April 15, 2008, and a full round of groundwater level measurements was obtained on the same day prior to commencing the sampling program.

A. GROUNDWATER QUALITY MONITORING

As proposed in the August 2006 Groundwater Monitoring Report and the July 2007 responses to OEPA comments, the April 2008 round of groundwater sampling included sampling of the following groundwater monitoring wells:

1. Water Table Unit (WTU) wells:
 - On-Site wells: MW-11, MW-107, MW-108 and MW-111; and
 - Off-Site downgradient wells: MW-4, MW-113, MW-114 and MW-115.
2. Upper Intermediate Unit (UIU) wells:
 - Off-Site downgradient wells: MW-209 and MW-220.

The samples were analyzed by Accutest of Dayton, New Jersey for the Site Specific Indicator Parameter List (SSIPL) provided in Table 1. Please note that bis(2-ethylhexyl)phthalate, which was inadvertently omitted from the analytical list for

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the November 2007 samples, is now included in the analyte list for the April 2008 groundwater samples.

Attachment A is a memorandum summarizing the groundwater monitoring field activities for the April 2008 groundwater monitoring event. Four of the eight WTU wells, and both of the UIU wells were purged dry. All wells recovered sufficiently for complete sample sets to be obtained. The fact that these wells purged dry is indicative that there is limited groundwater movement in these groundwater units.

Attachment B presents the analytical results for the detected compounds in the groundwater samples collected in April 2008, as follows:

<i>Tables in <u>Attachment B</u></i>	<i><u>Analytical Results</u></i>
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- | | |
|-----------|--|
| Table B.1 | Analytical Data Summary – WTU Monitoring Wells |
| Table B.2 | Analytical Data Summary – UIU Monitoring Wells |
| Table B.3 | Analytical Data Summary – Surface Water Sample |
| Table B.4 | Analytical Data Summary – Rinse Blanks |
| Table B.5 | Analytical Data Summary – Trip Blanks |

CRA's data quality assessment for the April 2008 analyses is included in **Attachment C**. The groundwater data were determined to be usable without qualification.

A summary of the SSIPL compounds (see Table 1) detected in the groundwater samples for the sampling events conducted in 1994 (Baseline), 1999 (5-year sampling event), 2004 (10-year sampling event), August 2005 (pre-shutdown sampling event), August 2006 (1-year post shutdown sampling event), April 2007, November 2007, and April 2008 are presented on the attached Plans WTU (4/08), and UIU (4/08), respectively. Trends in the WTU and UIU are noted as follows.

Water Table Unit (WTU) Trends:

The SSIPL concentrations in the on-Site monitoring wells (MW-107, MW-11 and MW-111) were similar to the November 2007 concentrations. Most SSIPL concentrations detected at MW-107 are higher than they were during the baseline event, but are generally similar to or less than those detected during the November 2007 event. With the exception of the increased vinyl chloride concentration at MW-11, SSIPL concentrations at MW-11 and MW-111 remain below the baseline monitoring event



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concentrations. SSIPL concentrations in on-Site monitoring well MW-108 continued to show an increase compared to the baseline and November 2007 events.

SSIPL concentrations in the downgradient off-Site monitoring wells have remained non-detect at MW-4, and MW-113. At MW-114, bis(2-ethylhexyl)phthalate was detected at a concentration of 2.4 µg/L for the first time. However, bis(2-ethylhexyl)phthalate is a common laboratory contaminant, and continued monitoring will confirm if this contaminant is related to the Site groundwater or to laboratory contamination. Low concentrations of 1,1-Dichloroethane (1,1-DCA) and cis-1,2-Dichloroethene (cis-1,2-DCE) detected in MW-115 remain within the range of concentrations detected since 2004 and lower than the concentrations reported in 2007. The concentrations of SSIPLs detected in the off-Site monitoring wells are below MCLs.

Upper Intermediate Unit (UIU) Trends:

SSIPL groundwater concentrations in the downgradient off-Site monitoring wells were non-detect, with the exception of acetone detected at MW-209 and MW-220. The concentration of acetone detected at MW-209 is within the range of detections of previous sampling events. Acetone was detected in MW-220 at a concentration of 23.5 µg/L. MW-220 has been non-detect for acetone at a method detection limit of 5.0 µg/L in the last four sampling events; however, it had a detection of acetone of 19.7 µg/L in 2005.

B. GROUNDWATER HYDRAULIC MONITORING

Groundwater levels in the WTU, UIU, LIU and USU monitoring wells and piezometers at the Site were measured on April 15, 2008, and are presented in **Attachment D**. **Attachment D** also includes the groundwater levels measured over the duration of the shutdown period. The groundwater hydraulic data were reduced to elevations and entered into a computer database as required by the SOW. Groundwater contours for the April 2008 groundwater hydraulic monitoring event are presented on figures in **Attachment D**.

The groundwater elevation contours for the April 2008 hydraulic monitoring demonstrate that the horizontal direction of groundwater flow is generally southeasterly in the WTU, as has been consistently observed in the past. The groundwater flow direction in the UIU bedrock unit appears to be in a generally easterly direction, and is consistent with the pre-shutdown groundwater flow direction in this unit.



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C. SURFACE WATER AND SEDIMENT SAMPLING

The annual surface water sample was collected from the confluence of the south and east drainage ditches in April 2008. A sediment sample was not collected due to high water levels in the impoundment area. The analytical results of detected compounds in the surface water samples are provided in Table B.3 of Attachment B. A sediment sample will be collected during the November semi-annual groundwater sampling event if the south and east drainage ditches are not flooded. The next annual surface water sample will be collected during the April 2009 event.

D. DISCUSSION

Except for the expected increasing groundwater levels in the vicinity of the pipe and media drain after shutdown of the groundwater extraction system in August 2005, and the groundwater mounding noted since shutdown at MW-322, no significant changes in the groundwater flow patterns have been noted since the system shutdown. Groundwater concentrations in downgradient off-Site monitoring wells have remained either non-detect or within the range of concentrations detected since 2004 (baseline sampling event for the shutdown evaluation).

Trace amounts of volatile organic compounds (VOCs) (1.3 µg/L of cis-1,2-dichloroethene and 0.49 µg/L of TCE) were detected in the surface water sample of the confluence of the south and east drainage ditches. Therefore, there does not appear to be any impact to the surface water downgradient from the Site based on the April 2008 surface water analytical data.

In accordance with the reinstatement conditions outlined in the August 2006 Groundwater Monitoring Report (CRA, January 19, 2007), as amended in the responses to the OEPA April 17, 2007 comments (CRA, July 23, 2007), since there is no indication of adverse impact to the off-Site groundwater in the WTU or the UIU groundwater units either before any remedial action at the Site, during the 10 years of active groundwater pump and treatment operations, or during the third year of shutdown of the groundwater extraction system, the groundwater extraction system will remain off pending the results of the November 2008 groundwater sampling event.



**CONESTOGA-ROVERS
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July 18, 2008

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Reference No. 006029-50

Should you have any questions or require additional information, please do not hesitate to contact the undersigned.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Steve Whillier".

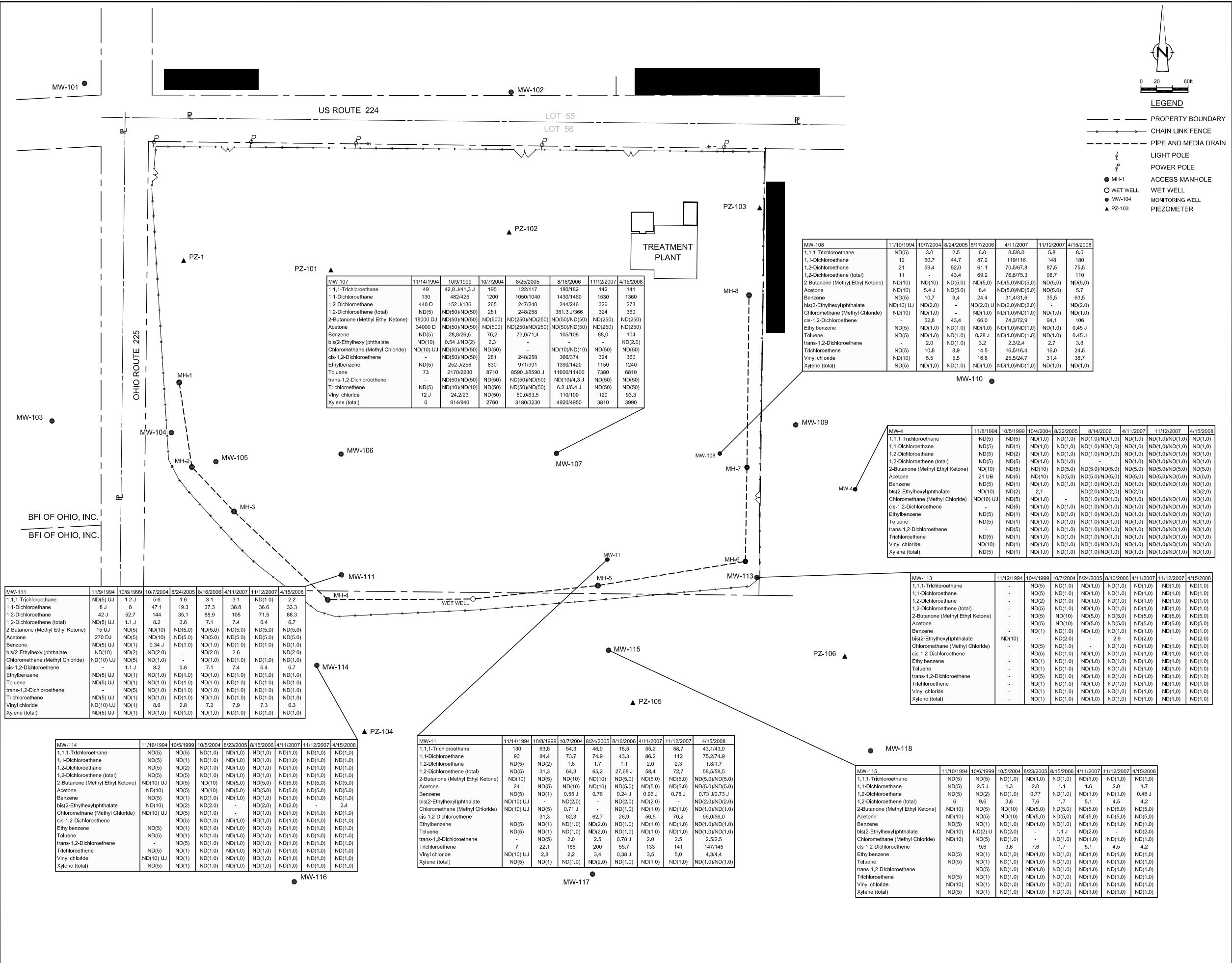
Steve Whillier

SW/ams/Will-057

Encl.

cc: Pablo Valentin (USEPA) (2 hard & 1 electronic copy)
 Kenneth Walanski (SNFT)
 Jeff Sussman (SNFT)
 Joe Montello (SNFT)
 Douglas G. Haynam (Shumaker, Loop & Kendrick, LLP)
 Jack Michels (CRA)
 Jennifer Maude (CRA)

FIGURES



No	Revision	Date	Initial
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Approved	
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Status Date Initial

SUMMIT NATIONAL SUPERFUND SITE DEERFIELD, OHIO		
GROUNDWATER QUALITY MONITORING		
WATER TABLE UNIT		

CONESTOGA-ROVERS & ASSOCIATES
Source Reference:
Project Manager: SAW Reviewed By: SW Date: MAY 30 2008
Scale: 1"=60' Project No: 06029-50 Report No: WILL057 Drawing No: WTU(4/08)

TABLES

TABLE 1
SITE-SPECIFIC INDICATOR PARAMETER LIST
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO

Volatile Organic Compounds (VOCs):

1,1,1-Trichloroethane
1,1-Dichloroethane
1,2-Dichloroethane
1,2-Dichloroethene, Total
cis-1,2-Dichloroethene
trans-1,2-Dichloroethene
2-Butanone (Methyl Ethyl Ketone)
Acetone
Benzene
Chloromethane (Methyl Chloride)
Ethylbenzene
Toluene
Trichloroethene
Vinyl Chloride
Xylenes, Total

Semi-Volatile Organic Compounds (SVOCs):

bis(2-ethylhexyl)phthalate

ATTACHMENT A

**GROUNDWATER MONITORING FIELD ACTIVITIES
SUMMARY APRIL 2008**



**CONESTOGA-ROVERS
& ASSOCIATES**

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Niagara Falls, New York 14304
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MEMORANDUM

TO: Stephen Whillier

REF. NO.: 006029-50

FROM: David Tyran/adh/2 *DST*

DATE: April 25, 2008

Via E-Mail and Interoffice Mail

RE: Post Shutdown Hydraulic Monitoring and Groundwater Quality Monitoring
April 2008
Summit National Superfund Site
Deerfield Township of Portage County, Ohio

The following is a brief summary of the Site activities associated with the April 2008 round of groundwater sampling conducted on April 15, 2008, at the Summit National Superfund Site (Site) in Deerfield Township of Portage County, Ohio.

On-Site Personnel

Field activities were conducted by Conestoga-Rovers & Associates' (CRA's) Danielle Carra and Dave Tyran.

Water Levels

A round of water level readings were taken from all on-Site and off-Site monitoring wells on April 15, 2008, using a Solinst electronic water level tape. The water level tape was decontaminated between water level measurements at each monitoring well. The decontamination sequence involved first rinsing the tape with potable water, and final rinsing with deionized water.

Purging and Sampling of Monitoring Wells

During purging of all monitoring wells, readings of pH, specific conductivity, temperature, and turbidity (dependent on field observations) were taken after the removal of each standing well volume. A summary of the well purge data is provided in Table 1. The quality of the evacuated water was also noted for color and clarity. All purge waters (approximately 90 gallons) from the monitoring wells were containerized in two steel 55-gallon drums for later disposal off Site.

Once the monitoring wells were purged, groundwater samples were collected for analyses of the Site-Specific Indicator Parameter List (SSIPL) for volatile organic compounds (VOCs) and Bis(2ethylhexyl) phthalate.

All ten monitoring wells were purged using dedicated Waterra foot valves and tubing and were sampled using a precleaned stainless steel bailer (as detailed below). Once purging of the monitoring well was completed, the tubing was removed from the well and drained. The standing water within the well was allowed to settle so that a clear sample could be collected. After sampling of the well was completed, the tubing was placed back down the well.

As shown in Table 1, six out of the ten wells were purged dry and then allowed to recover so a complete sample set could be taken. The remaining four wells had sufficient recharge to allow for stabilization by purging three or more volumes.

Collected samples were labeled and placed in a cooler and maintained cool with ice. The samples were shipped by Federal Express to Accutest Laboratories in Dayton, New Jersey, under Chain of Custody protocols.

Decontamination Procedures

Stainless steel bailers were cleaned between monitoring wells by using the following decontamination sequence:

- i) clean with brush in potable water and Alconox detergent;
- ii) rinse thoroughly with potable water;
- iii) rinse thoroughly with deionized water; and
- iv) allow the bailer to air dry on clean aluminum foil.

Field Quality Assurance/Quality Control (QA/QC) Program

Field QA/QC samples collected during the April 2008 round of groundwater sampling included one blind field duplicate and one stainless steel bailer rinsate blank. One matrix spike and matrix spike duplicate (MS/MSDs) was also collected. One trip blank was sent with the shipment of samples to the laboratory by placing all VOC samples in the same cooler with the trip blank.

Stainless steel bailer rinsate blanks were collected by pouring lab supplied deionized water into a precleaned bailer and then filling the sample containers.

Sediment Sample

Due to the unusually high water in the impoundment area, the sediment sample was not collected this round. Another attempt will be made during the November 2008 sampling event.

Surface Water

A surface water sample was collected at the confluence of the South and East ditches. This sample was analyzed for Target Compound List (TCL) VOCs, semi-volatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs).

Wastewater

Upon completion of the groundwater sampling, a wastewater sample was collected from the four 55-gallon drums of purge water staged on Site. The sample was obtained by removing an equal aliquot of water from each drum and compositing that into one sample. The sample was analyzed for Toxicity Characteristic Leaching Procedure (TCLP), VOCs, SVOCs, pesticides, herbicides, and metals, as well as total cyanide, total sulfide, and pH.

TABLE 1

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**SUMMARY OF MONITORING WELL PURGE DATA
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP OF PORTAGE COUNTY, OHIO
APRIL 2008**

Well I.D.	Date Purged/ Sampled	Well Volume (Gallons)	Purged Volume (Gallons)	Time	Conductivity (μs/cm)	pH	Temperature (°C)	Turbidity (NTU)	Water Quality	Purge/Sampling Method	Comments
MW-4	04/15/08	11.9	11.9	13:09	3.14	7.08	12.8	178	Clear, colorless	Waterra/SS bailer	Well dry @ 13.0 gallons
	04/15/08		Sample	18:30					Clear, colorless	for all parameters	
MW-11	04/15/08	2.8	2.8	15:11	2.57	6.84	11.4	6.0	Cloudy, dark brown	Waterra/SS bailer	Good recharge
		5.6	5.6	15:13	2.34	6.85	10.1	0		for all parameters	
		8.4	8.4	15:16	2.26	6.60	9.9	0			
			Sample	17:25					Clear, colorless		
MW-107	04/15/08	3.5	3.5	15:56	3.53	6.88	12.1	6.6	Clear, colorless, moderate chemical odor	Waterra/SS bailer	Good recharge
		7.0	7.0	16:03	3.50	6.97	11.0	0		for all parameters	
		10.5	10.5	16:07	3.51	6.91	10.7	0			
			Sample	17:40					Clear, colorless, moderate chemical odor		
MW-108	04/15/08	2.1	2.1	14:43	2.07	6.76	9.8	174	Cloudy, red brown	Waterra/SS bailer	Well dry @ 6.3 gallons
		4.2	4.2	14:45	1.96	6.74	9.9	358		for all parameters	
		6.3	6.3	14:47	2.16	6.82	9.4	212			
			Sample	17:30					Slightly cloudy orange		
MW-111	04/15/08	2.7	2.7	15:32	4.16	6.34	12.9	4.9	Clear, colorless	Waterra/SS bailer	Good recharge
		5.4	5.4	15:35	4.27	6.07	11.8	0		for all parameters	
		8.1	8.1	15:37	4.22	5.92	11.7	0			
			Sample	17:15					Clear, colorless		
MW-113	04/15/08	2.0	2.0	14:55	4.26	7.38	9.9	268	Cloudy, dark gray	Waterra/SS bailer	Well dry @ 3.8 gallons
			Sample	17:20					Clear, colorless	for all parameters	
MW-114	04/15/08	2.2	2.2	11:52	3.01	6.04	10.6	238	Cloudy, brown	Waterra/SS bailer	Well dry @ 4.4 gallons

TABLE 1

Page 2 of 2

**SUMMARY OF MONITORING WELL PURGE DATA
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP OF PORTAGE COUNTY, OHIO
APRIL 2008**

Well I.D.	Date Purged/ Sampled	Well Volume (Gallons)	Purged Volume (Gallons)	Time	Conductivity (ms/cm)	pH	Temperature (°C)	Turbidity (NTU)	Water Quality	Purge/Sampling Method	Comments
MW-115	04/15/08	4.0	4.0	12:15	2.70	6.47	13.2	10.0	Slightly cloudy, light brown	Waterra/SS bailer for all parameters	Good recharge
			8.0	12:24	2.72	6.65	12.2	2.0			
			12.0	12:32	2.74	6.72	12.1	0.6	Slightly cloudy, light brown		
			Sample	16:55							
MW-209	04/15/08	5.5	5.5	14:29	3.84	6.90	12.7	58.0	Clear, colorless	Waterra/SS bailer for all parameters	Well dry @ 10.0 gallons
			Sample	17:10					Clear, colorless		
MW-220	04/15/08	5.1	5.1	11:30	4.00	5.84	11.5	31.9	Clear, colorless	Waterra/SS bailer for all parameters	Well dry @ 9.0 gallons
			Sample	17:05					Clear, colorless		

Notes:

SS - Stainless Steel.

ATTACHMENT B

ANALYTICAL DATA SUMMARY

TABLE B.1

**ANALYTICAL DATA SUMMARY
WTU MONITORING WELLS
APRIL 2008 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

Sample Location	<i>MW-4</i>	<i>MW-11</i>	<i>MW-11</i>	<i>MW-107</i>	<i>MW-108</i>	<i>MW-111</i>	<i>MW-113</i>	<i>MW-114</i>	<i>MW-115</i>									
Sample ID	WG-6029-041508-011	WG-6029-041508-005	WG-6029-041508-006	WG-6029-041508-010	WG-6029-041508-009	WG-6029-041508-004	WG-6029-041508-008	WG-6029-041508-001	WG-6029-041508-002									
Sample Date	4/15/2008	4/15/2008	4/15/2008	4/15/2008	4/15/2008	4/15/2008	4/15/2008	4/15/2008	4/15/2008									
Sample Type	<i>Duplicate</i>																	
<i>Units</i>																		
<i>Semi-Volatile Organic Compounds</i>																		
bis(2-Ethylhexyl)phthalate	ug/L	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	2.4	ND(2.0)									
<i>Volatile Organic Compounds</i>																		
1,1,1-Trichloroethane	ug/L	ND(1.0)	43.1	43.0	141	8.5	2.2	ND(1.0)	ND(1.0)									
1,1-Dichloroethane	ug/L	ND(1.0)	75.2	74.9	1360	180	33.3	ND(1.0)	ND(1.0)									
1,2-Dichloroethane	ug/L	ND(1.0)	1.7	1.8	273	75.5	88.3	ND(1.0)	ND(1.0)									
1,2-Dichloroethene (total)	ug/L	ND(1.0)	58.5	58.5	360	110	6.7	ND(1.0)	ND(1.0)									
2-Butanone (Methyl Ethyl Ketone)	ug/L	ND(5.0)	ND(5.0)	ND(5.0)	ND(250)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)									
Acetone	ug/L	ND(5.0)	ND(5.0)	ND(5.0)	ND(250)	5.7	ND(5.0)	ND(5.0)	ND(5.0)									
Benzene	ug/L	ND(1.0)	0.73 J	0.73 J	104	63.5	ND(1.0)	ND(1.0)	ND(1.0)									
Chloromethane (Methyl Chloride)	ug/L	ND(1.0)	ND(1.0)	ND(1.0)	ND(50)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)									
cis-1,2-Dichloroethene	ug/L	ND(1.0)	56.0	56.0	360	106	6.7	ND(1.0)	ND(1.0)									
Ethylbenzene	ug/L	ND(1.0)	ND(1.0)	ND(1.0)	1240	0.45 J	ND(1.0)	ND(1.0)	ND(1.0)									
Toluene	ug/L	ND(1.0)	ND(1.0)	ND(1.0)	6810	0.45 J	ND(1.0)	ND(1.0)	ND(1.0)									
trans-1,2-Dichloroethene	ug/L	ND(1.0)	2.5	2.5	ND(50)	3.8	ND(1.0)	ND(1.0)	ND(1.0)									
Trichloroethene	ug/L	ND(1.0)	147	145	ND(50)	24.6	ND(1.0)	ND(1.0)	ND(1.0)									
Vinyl chloride	ug/L	ND(1.0)	4.3	4.4	93.3	38.7	6.3	ND(1.0)	ND(1.0)									
Xylene (total)	ug/L	ND(1.0)	ND(1.0)	ND(1.0)	3990	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)									

Notes:

ND () - Not present at or above the associated value.

J - Estimated concentration.

MCL-National Primary Drinking Water Standards- Maximum Contaminant Levels

TABLE B.2

**ANALYTICAL DATA SUMMARY
UIU MONITORING WELLS
APRIL 2008 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

<i>Sample Location</i>		<i>MW-209</i>	<i>MW-220</i>
<i>Sample ID</i>		WG-6029-041508-007	WG-6029-041508-003
<i>Sample Date</i>		4/15/2008	4/15/2008
<i>Sample Type</i>		<i>Units</i>	
<i>Semi-Volatile Organic Compounds</i>			
bis(2-Ethylhexyl)phthalate	ug/L	ND(2.0)	ND(2.0)
<i>Volatile Organic Compounds</i>			
1,1,1-Trichloroethane	ug/L	ND(1.0)	ND(1.0)
1,1-Dichloroethane	ug/L	ND(1.0)	ND(1.0)
1,2-Dichloroethane	ug/L	ND(1.0)	ND(1.0)
1,2-Dichloroethene (total)	ug/L	ND(1.0)	ND(1.0)
2-Butanone (Methyl Ethyl Ketone)	ug/L	ND(5.0)	ND(5.0)
Acetone	ug/L	18.7	23.5
Benzene	ug/L	ND(1.0)	ND(1.0)
Chloromethane (Methyl Chloride)	ug/L	ND(1.0)	ND(1.0)
cis-1,2-Dichloroethene	ug/L	ND(1.0)	ND(1.0)
Ethylbenzene	ug/L	ND(1.0)	ND(1.0)
Toluene	ug/L	ND(1.0)	ND(1.0)
trans-1,2-Dichloroethene	ug/L	ND(1.0)	ND(1.0)
Trichloroethene	ug/L	ND(1.0)	ND(1.0)
Vinyl chloride	ug/L	ND(1.0)	ND(1.0)
Xylene (total)	ug/L	ND(1.0)	ND(1.0)

Notes:

ND () - Not present at or above the associated value.

J - Estimated concentration.

MCL-National Primary Drinking Water Standards- Maximum Contaminant Levels

TABLE B.3

**ANALYTICAL DATA SUMMARY
SURFACE WATER SAMPLE
APRIL 2008 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

<i>Sample Location</i>	<i>S&E Ditches Surface Water</i>	<i>S&E Ditches Surface Water</i>
<i>Sample ID</i>	SW-6029-041508-013	SW-6029-041508-014
<i>Sample Date</i>	4/15/2008	4/15/2008
<i>Sample Type</i>		Duplicate
	<i>Units</i>	
PCBs		
Aroclor-1016 (PCB-1016)	ug/L	ND(0.50)
Aroclor-1221 (PCB-1221)	ug/L	ND(0.50)
Aroclor-1232 (PCB-1232)	ug/L	ND(0.50)
Aroclor-1242 (PCB-1242)	ug/L	ND(0.50)
Aroclor-1248 (PCB-1248)	ug/L	ND(0.50)
Aroclor-1254 (PCB-1254)	ug/L	ND(0.50)
Aroclor-1260 (PCB-1260)	ug/L	ND(0.50)
Pesticides		
4,4'-DDD	ug/L	ND(0.020)
4,4'-DDE	ug/L	ND(0.020)
4,4'-DDT	ug/L	ND(0.020)
Aldrin	ug/L	ND(0.020)
alpha-BHC	ug/L	ND(0.020)
alpha-Chlordane	ug/L	ND(0.020)
beta-BHC	ug/L	ND(0.020)
delta-BHC	ug/L	ND(0.020)
Dieldrin	ug/L	ND(0.020)
Endosulfan I	ug/L	ND(0.020)
Endosulfan II	ug/L	ND(0.020)
Endosulfan sulfate	ug/L	ND(0.020)
Endrin	ug/L	ND(0.020)
Endrin aldehyde	ug/L	ND(0.020)
Endrin ketone	ug/L	ND(0.020)
gamma-BHC (Lindane)	ug/L	ND(0.020)
gamma-Chlordane	ug/L	ND(0.020)
Heptachlor	ug/L	ND(0.020)
Heptachlor epoxide	ug/L	ND(0.020)
Methoxychlor	ug/L	ND(0.020)
Toxaphene	ug/L	ND(0.25)
Semi-Volatile Organic Compounds		
1,2,4-Trichlorobenzene	ug/L	ND(2.0)
1,2-Dichlorobenzene	ug/L	ND(2.0)
1,3-Dichlorobenzene	ug/L	ND(2.0)
1,4-Dichlorobenzene	ug/L	ND(2.0)
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	ND(2.0)

TABLE B.3

**ANALYTICAL DATA SUMMARY
SURFACE WATER SAMPLE
APRIL 2008 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

<i>Sample Location</i>	<i>S&E Ditches Surface Water</i>	<i>S&E Ditches Surface Water</i>
<i>Sample ID</i>	SW-6029-041508-013	SW-6029-041508-014
<i>Sample Date</i>	4/15/2008	4/15/2008
<i>Sample Type</i>		Duplicate
	<i>Units</i>	
2,4,5-Trichlorophenol	ug/L	ND(5.0)
2,4,6-Trichlorophenol	ug/L	ND(5.0)
2,4-Dichlorophenol	ug/L	ND(5.0)
2,4-Dimethylphenol	ug/L	ND(5.0)
2,4-Dinitrophenol	ug/L	ND(20)
2,4-Dinitrotoluene	ug/L	ND(2.0)
2,6-Dinitrotoluene	ug/L	ND(2.0)
2-Chloronaphthalene	ug/L	ND(5.0)
2-Chlorophenol	ug/L	ND(5.0)
2-Methylnaphthalene	ug/L	ND(2.0)
2-Methylphenol	ug/L	ND(2.0)
2-Nitroaniline	ug/L	ND(5.0)
2-Nitrophenol	ug/L	ND(5.0)
3&4-Methylphenol	ug/L	ND(2.0)
3,3'-Dichlorobenzidine	ug/L	ND(5.0)
3-Nitroaniline	ug/L	ND(5.0)
4,6-Dinitro-2-methylphenol	ug/L	ND(20)
4-Bromophenyl phenyl ether	ug/L	ND(2.0)
4-Chloro-3-methylphenol	ug/L	ND(5.0)
4-Chloroaniline	ug/L	ND(5.0)
4-Chlorophenyl phenyl ether	ug/L	ND(2.0)
4-Nitroaniline	ug/L	ND(5.0)
4-Nitrophenol	ug/L	ND(20)
Acenaphthene	ug/L	ND(2.0)
Acenaphthylene	ug/L	ND(2.0)
Anthracene	ug/L	ND(2.0)
Benzo(a)anthracene	ug/L	ND(2.0)
Benzo(a)pyrene	ug/L	ND(2.0)
Benzo(b)fluoranthene	ug/L	ND(2.0)
Benzo(g,h,i)perylene	ug/L	ND(2.0)
Benzo(k)fluoranthene	ug/L	ND(2.0)
bis(2-Chloroethoxy)methane	ug/L	ND(2.0)
bis(2-Chloroethyl)ether	ug/L	ND(2.0)
bis(2-Ethylhexyl)phthalate	ug/L	ND(2.0)
Butyl benzylphthalate	ug/L	ND(2.0)
Carbazole	ug/L	ND(2.0)
Chrysene	ug/L	ND(2.0)
Dibenz(a,h)anthracene	ug/L	ND(2.0)
Dibenzofuran	ug/L	ND(5.0)
Diethyl phthalate	ug/L	ND(2.0)
Dimethyl phthalate	ug/L	ND(2.0)

TABLE B.3

**ANALYTICAL DATA SUMMARY
SURFACE WATER SAMPLE
APRIL 2008 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

<i>Sample Location</i>	<i>S&E Ditches Surface Water</i>	<i>S&E Ditches Surface Water</i>
<i>Sample ID</i>	SW-6029-041508-013	SW-6029-041508-014
<i>Sample Date</i>	4/15/2008	4/15/2008
<i>Sample Type</i>		Duplicate
	<i>Units</i>	
Di-n-butylphthalate	ug/L	ND(2.0)
Di-n-octyl phthalate	ug/L	ND(2.0)
Fluoranthene	ug/L	ND(2.0)
Fluorene	ug/L	ND(2.0)
Hexachlorobenzene	ug/L	ND(2.0)
Hexachlorobutadiene	ug/L	ND(2.0)
Hexachlorocyclopentadiene	ug/L	ND(20)
Hexachloroethane	ug/L	ND(5.0)
Indeno(1,2,3-cd)pyrene	ug/L	ND(2.0)
Isophorone	ug/L	ND(2.0)
Naphthalene	ug/L	ND(2.0)
Nitrobenzene	ug/L	ND(2.0)
N-Nitrosodi-n-propylamine	ug/L	ND(2.0)
N-Nitrosodiphenylamine	ug/L	ND(5.0)
Pentachlorophenol	ug/L	ND(10)
Phenanthrene	ug/L	ND(2.0)
Phenol	ug/L	ND(2.0)
Pyrene	ug/L	ND(2.0)
<i>Volatile Organic Compounds</i>		
1,1,1-Trichloroethane	ug/L	ND(1.0)
1,1,2,2-Tetrachloroethane	ug/L	ND(1.0)
1,1,2-Trichloroethane	ug/L	ND(1.0)
1,1-Dichloroethane	ug/L	ND(1.0)
1,1-Dichloroethene	ug/L	ND(1.0)
1,2-Dichloroethane	ug/L	ND(1.0)
1,2-Dichloroethene (total)	ug/L	1.2
1,2-Dichloropropane	ug/L	ND(1.0)
2-Butanone (Methyl Ethyl Ketone)	ug/L	ND(5.0)
2-Hexanone	ug/L	ND(5.0)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	ND(5.0)
Acetone	ug/L	ND(5.0)
Benzene	ug/L	ND(1.0)
Bromodichloromethane	ug/L	ND(1.0)
Bromoform	ug/L	ND(4.0)
Bromomethane (Methyl Bromide)	ug/L	ND(2.0)
Carbon disulfide	ug/L	ND(2.0)
Carbon tetrachloride	ug/L	ND(1.0)
Chlorobenzene	ug/L	ND(1.0)
Chloroethane	ug/L	ND(1.0)

TABLE B.3

**ANALYTICAL DATA SUMMARY
SURFACE WATER SAMPLE
APRIL 2008 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

<i>Sample Location</i>	<i>S&E Ditches Surface Water</i>	<i>S&E Ditches Surface Water</i>
<i>Sample ID</i>	SW-6029-041508-013	SW-6029-041508-014
<i>Sample Date</i>	4/15/2008	4/15/2008
<i>Sample Type</i>		Duplicate
	<i>Units</i>	
Chloroform (Trichloromethane)	ug/L	ND(1.0)
Chloromethane (Methyl Chloride)	ug/L	ND(1.0)
cis-1,2-Dichloroethene	ug/L	1.2
cis-1,3-Dichloropropene	ug/L	ND(1.0)
Dibromochloromethane	ug/L	ND(1.0)
Ethylbenzene	ug/L	ND(1.0)
Methylene chloride	ug/L	ND(2.0)
Styrene	ug/L	ND(5.0)
Tetrachloroethene	ug/L	ND(1.0)
Toluene	ug/L	ND(1.0)
trans-1,2-Dichloroethene	ug/L	ND(1.0)
trans-1,3-Dichloropropene	ug/L	ND(1.0)
Trichloroethene	ug/L	0.49 J
Vinyl chloride	ug/L	ND(1.0)
Xylene (total)	ug/L	ND(1.0)

Notes:

ND () - Not present at or above the associated value.

J - Estimated concentration.

TABLE B.4

**ANALYTICAL DATA SUMMARY
RINSE BLANKS**
April 2008 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO

<i>Sample Location</i>	<i>Rinse Blank</i>
<i>Sample ID</i>	RB-6029-041508-012
<i>Sample Date</i>	4/15/2008
<i>Sample Type</i>	Duplicate
	<i>Units</i>
<i>Semi-Volatile Organic Compounds</i>	
bis(2-Ethylhexyl)phthalate	ug/L ND(2.0)
<i>Volatile Organic Compounds</i>	
1,1,1-Trichloroethane	ug/L ND(1.0)
1,1-Dichloroethane	ug/L ND(1.0)
1,2-Dichloroethane	ug/L ND(1.0)
1,2-Dichloroethene (total)	ug/L ND(1.0)
2-Butanone (Methyl Ethyl Ketone)	ug/L ND(5.0)
Acetone	ug/L ND(5.0)
Benzene	ug/L ND(1.0)
Chloromethane (Methyl Chloride)	ug/L ND(1.0)
cis-1,2-Dichloroethene	ug/L ND(1.0)
Ethylbenzene	ug/L ND(1.0)
Toluene	ug/L ND(1.0)
trans-1,2-Dichloroethene	ug/L ND(1.0)
Trichloroethene	ug/L ND(1.0)
Vinyl chloride	ug/L ND(1.0)
Xylene (total)	ug/L ND(1.0)

Notes:

ND () - Not present at or above the associated value.

J - Estimated concentration.

TABLE B.5

**ANALYTICAL DATA SUMMARY
TRIP BLANK**
APRIL 2008 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO

<i>Sample Location</i>	<i>Trip Blank</i>
<i>Sample ID</i>	TB-6029-041508
<i>Sample Date</i>	4/15/2008
<i>Sample Type</i>	Duplicate
	<i>Units</i>
<i>Semi-Volatile Organic Compounds</i>	
bis(2-Ethylhexyl)phthalate	ug/L --
<i>Volatile Organic Compounds</i>	
1,1,1-Trichloroethane	ug/L ND(1.0)
1,1-Dichloroethane	ug/L ND(1.0)
1,2-Dichloroethane	ug/L ND(1.0)
1,2-Dichloroethene (total)	ug/L ND(1.0)
1,2-Dichloropropane	ug/L ND(1.0)
2-Butanone (Methyl Ethyl Ketone)	ug/L ND(5.0)
Acetone	ug/L ND(5.0)
Benzene	ug/L ND(1.0)
Chloromethane (Methyl Chloride)	ug/L ND(1.0)
cis-1,2-Dichloroethene	ug/L ND(1.0)
Ethylbenzene	ug/L ND(1.0)
Toluene	ug/L ND(1.0)
trans-1,2-Dichloroethene	ug/L ND(1.0)
Trichloroethene	ug/L ND(1.0)
Vinyl chloride	ug/L ND(1.0)
Xylene (total)	ug/L ND(1.0)

Notes:

ND () - Not present at or above the associated value.

J - Estimated concentration.

ATTACHMENT C

DATA QUALITY ASSESSMENT



**CONESTOGA-ROVERS
& ASSOCIATES**

8615 W. Bryn Mawr Avenue, Chicago, Illinois 60631
Telephone: (773) 380-9933 Fax: (773) 380-6421
www.CRAworld.com

MEMORANDUM

TO: Steve Whillier REF. NO.: 006029-50

FROM: Steve Day/ko/33 *S. Day* DATE: June 10, 2008

C.C.: Jennifer Maude

RE: Data Quality Assessment and Validation
April 2008 Sampling Event
Summit National Superfund Site
Deerfield Township, Portage County, Ohio

The following summarizes the results of the data quality assessment and validation conducted for the samples collected on April 15, 2008 from the Summit National Superfund Site in Deerfield Township, Portage County, Ohio (Site). The samples identified in Table 1 were selectively analyzed for Site-specific indicator parameter list (SSIPL) and target compound list (TCL) volatile organic compounds (VOCs), SSIPL and TCL semivolatile organic compounds (SVOCs), TCL pesticides, and TCL polychlorinated biphenyls (PCBs) by Accutest Laboratories, Inc. of Dayton, New Jersey. The methods of analysis are presented in Table 2. The data quality evaluation criteria were established by the Site-specific quality assurance project plan (QAPP)¹.

Sample Receipt and Holding Time Periods

All samples were received intact, properly preserved, within the proper temperature range, and with the required chain-of-custody documentation. All samples were prepared and analyzed within the holding time periods specified in Table 3.

Method Blank Sample Data

Method blank sample data were evaluated to verify that analytes detected in investigative samples were not attributable to laboratory conditions or procedures. Target analytes were not detected in the method blank samples.

Surrogate Compounds Data

Method performance on individual samples was evaluated by the percent recovery data from surrogate compounds spiked into each sample prior to preparation and analysis. The surrogate compound percent recovery acceptance criteria were met for all samples.

¹Application of data quality evaluation criteria was consistent with the relevant criteria in "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", EPA-540/R-99/008, October 1999 and "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review", EPA-540/R-94-013, February 1994.



Blank Spike Sample Analyses

Analytical accuracy was evaluated by the percent recovery data from blank spike sample analyses. The blank spike sample percent recovery data were acceptable for all parameters.

Matrix Spike/Matrix Spike Duplicate Sample Analyses

Accuracy and precision relative to the sample matrices were evaluated by percent recovery and relative percent difference (RPD) data from matrix spike/matrix spike duplicate (MS/MSD) sample analyses. The percent recovery and RPD data were acceptable for all project-related MS/MSD samples.

Sample Quantitation

Results reported at concentrations between their respective method detection limits and reporting limits were flagged by the laboratory with the "J" qualifier. Results flagged as such are estimated concentrations, and the laboratory's qualifier was retained during the data validation process.

Field Quality Assurance/Quality Control

Field quality assurance measures included the analysis of equipment rinsate blank, field duplicate, and trip blank samples.

The effectiveness of field decontamination and cleanliness of field sampling equipment were evaluated by the data from the analysis of an equipment rinsate blank sample. Target analytes were not detected in the equipment rinsate blank sample, indicating the decontamination procedure was effective.

Overall precision of the sampling and analysis event was evaluated by the data from the analyses of field duplicate samples that were submitted blind to the laboratory. Table 4 summarizes the results of analytes detected in the investigative and field duplicate samples. The RPDs calculated from the results indicate overall precision was acceptable.

A trip blank sample was included in the shipping cooler containing investigative groundwater and surface water samples to monitor for sample cross-contamination by VOCs during sample shipping and storage. VOCs were not detected in the trip blank sample.

Completeness

Completeness, as determined by the total number of usable results versus the total number of results, was required to be 95 percent or greater. All data were usable, and the completeness goal specified in the QAPP was achieved.

Overall Assessment

The data are suitable for their intended purpose without qualification.

TABLE 1

SAMPLE IDENTIFICATION NUMBERS
APRIL 2008 SAMPLING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP, PORTAGE COUNTY, OHIO

<i>Sample ID</i>	<i>Location</i>
WG-6029-041508-001	MW-114
WG-6029-041508-002	MW-115
WG-6029-041508-003	MW-220
WG-6029-041508-004	MW-111
WG-6029-041508-005	MW-11
WG-6029-041508-006	MW-11 (Duplicate)
WG-6029-041508-007	MW-209
WG-6029-041508-008	MW-113
WG-6029-041508-009	MW-108
WG-6029-041508-010	MW-107
WG-6029-041508-011	MW-4
RB-6029-041508-012	Equipment Rinse Blank
WG-6029-041508-013	S&E Ditches Surface Water
WG-6029-041508-014	S&E Ditches Surface Water (Duplicate)
TB-6029-041508	Trip Blank

TABLE 2

SUMMARY OF ANALYTICAL METHODS
APRIL 2008 SAMPLING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP, PORTAGE COUNTY, OHIO

<i>Parameter</i>	<i>Analytical Method</i> ¹
Volatile Organic Compounds (VOCs)	SW-846 8260B
Semivolatile Organic Compounds (SVOCs)	SW-846 8270C
Pesticides	SW-846 8081A
Polychlorinated biphenyls (PCBs)	SW-846 8082

¹ Methods were referenced from:
SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA SW-846,
3rd Edition with Updates I through IIIB.

TABLE 3

HOLDING TIME PERIODS
APRIL 2008 SAMPLING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP, PORTAGE COUNTY, OHIO

<i>Parameter</i>	<i>Holding Time Period</i>
VOCs	- 14 days from sample collection to completion of analysis
SVOCs, Pesticides, PCBs	- 14 days from sample collection to extraction; 40 days from extraction to completion of analysis

TABLE 4

SUMMARY OF DETECTED ANALYTES
FIELD DUPLICATE SAMPLES
APRIL 2008 SAMPLING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP, PORTAGE COUNTY, OHIO

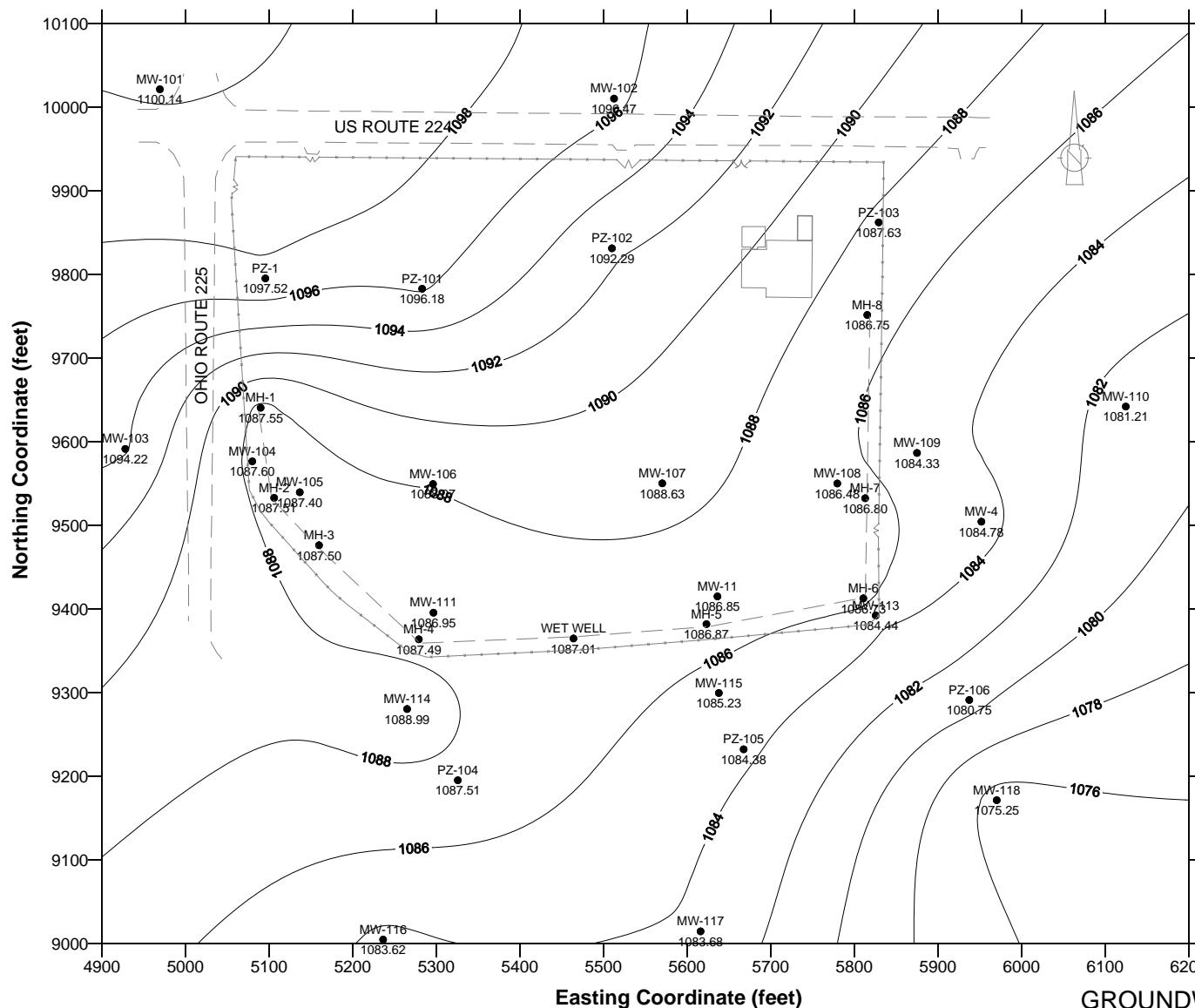
<i>Analyte</i>	<i>Investigative Sample</i> WG-6029-041508-005	<i>Duplicate Sample</i> WG-6029-041508-006	<i>RPD</i> ¹
1,1,1-Trichloroethane	43.1	43.0	0.2
1,1-Dichloroethane	75.2	74.9	0.4
1,2-Dichloroethane	1.7	1.8	5.7
1,2-Dichloroethene (total)	58.5	58.5	0
Benzene	0.73 J	0.73 J	0
cis-1,2-Dichloroethene	56.0	56.0	0
trans-1,2-Dichloroethene	2.5	2.5	0
Trichloroethene	147	145	1.4
Vinyl chloride	4.3	4.4	2.3
<i>Analyte</i>	<i>Investigative Sample</i> SW-6029-041508-013	<i>Duplicate Sample</i> SW-6029-041508-014	<i>RPD</i>
1,2-Dichloroethene (total)	1.3	1.2	8.0
cis-1,2-Dichloroethene	1.3	1.2	8.0
Trichloroethene	0.53 J	0.49 J	7.8

¹ RPD - Relative Percent Difference

² J - Estimated concentration

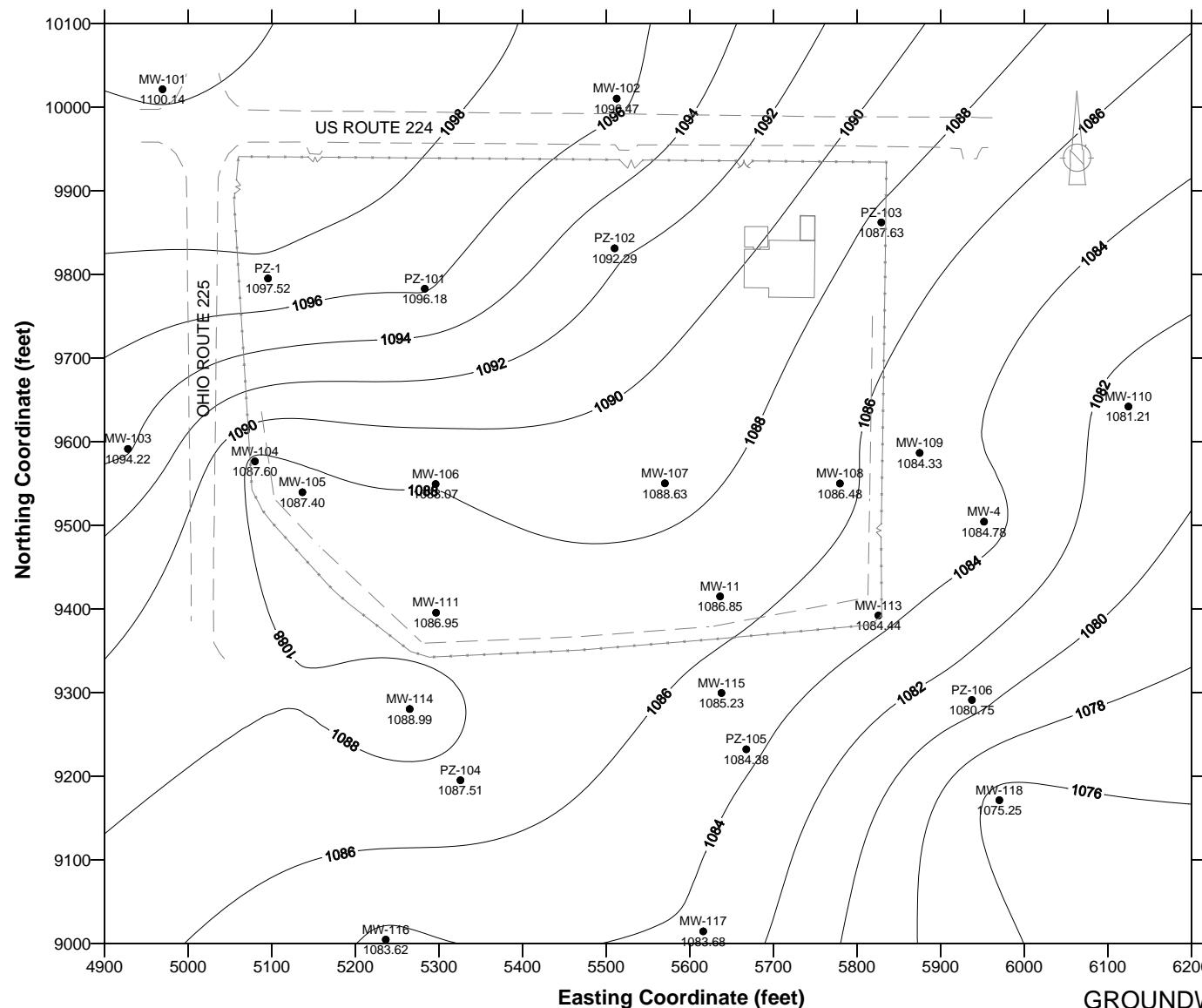
ATTACHMENT D

GROUNDWATER CONTOURS



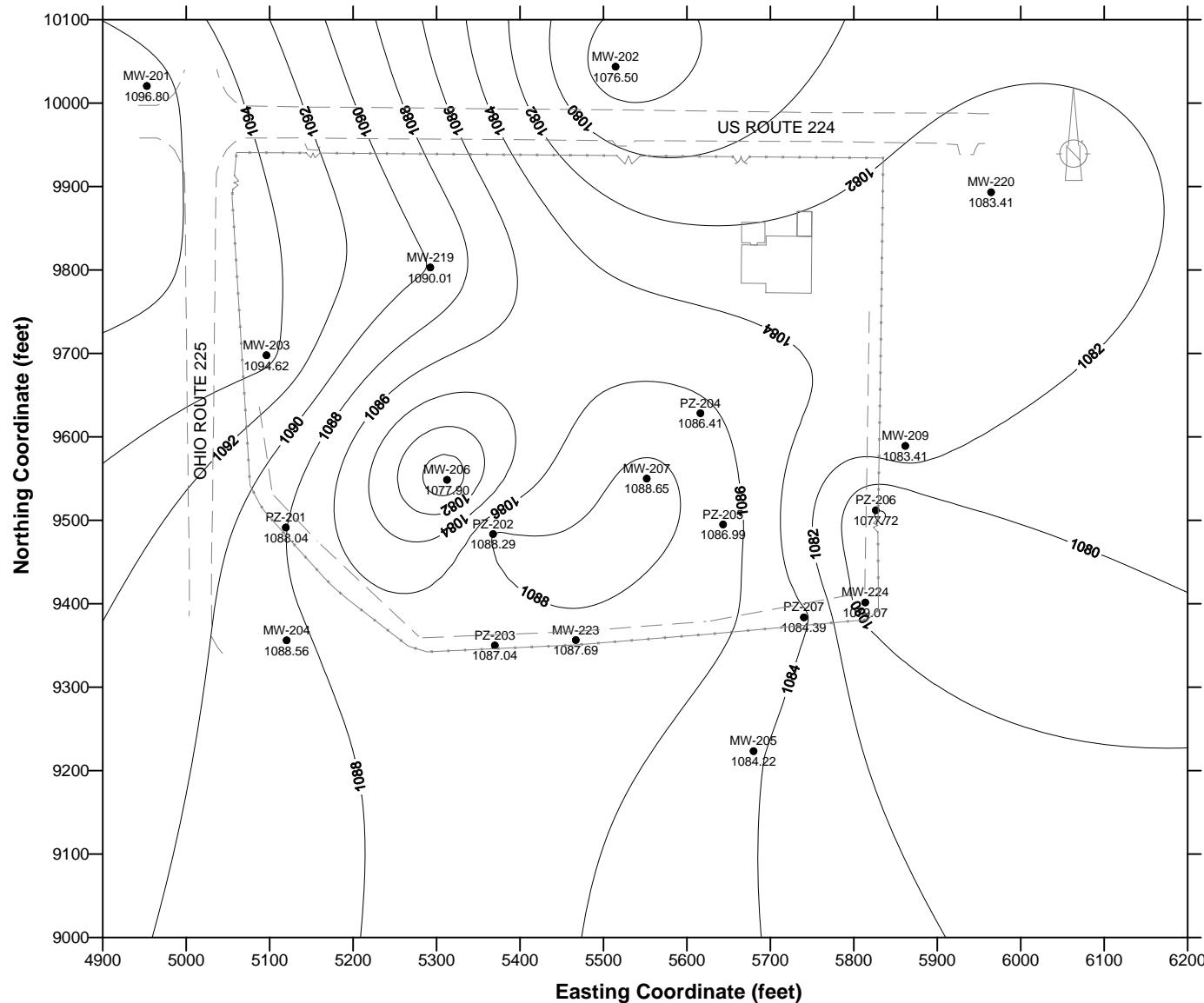
GROUNDWATER CONTOURS
WATER TABLE UNIT -- APRIL 15, 2008
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio





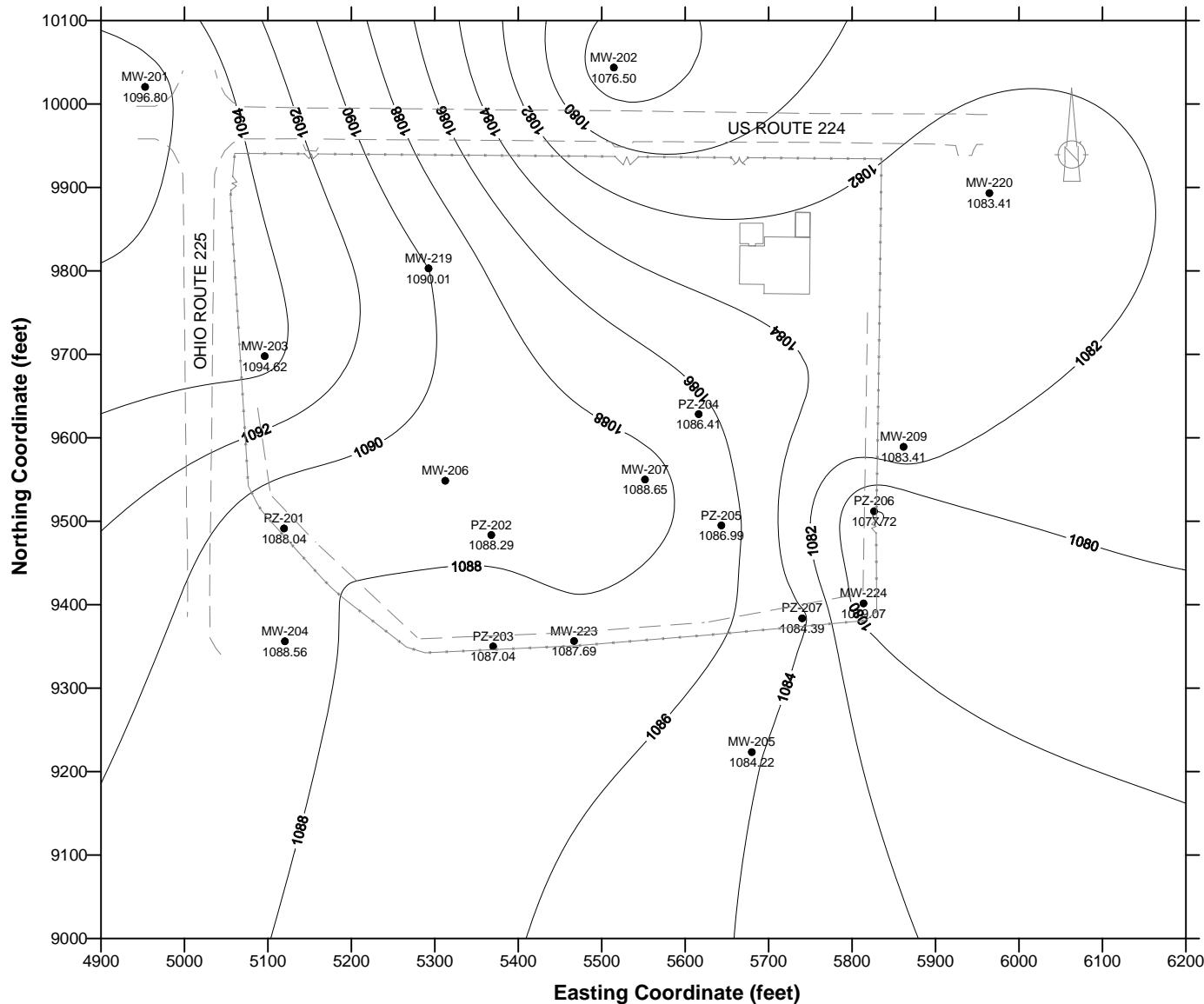
GROUNDWATER CONTOURS
WATER TABLE UNIT (w/o MANHOLES) -- APRIL 15, 2008
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio





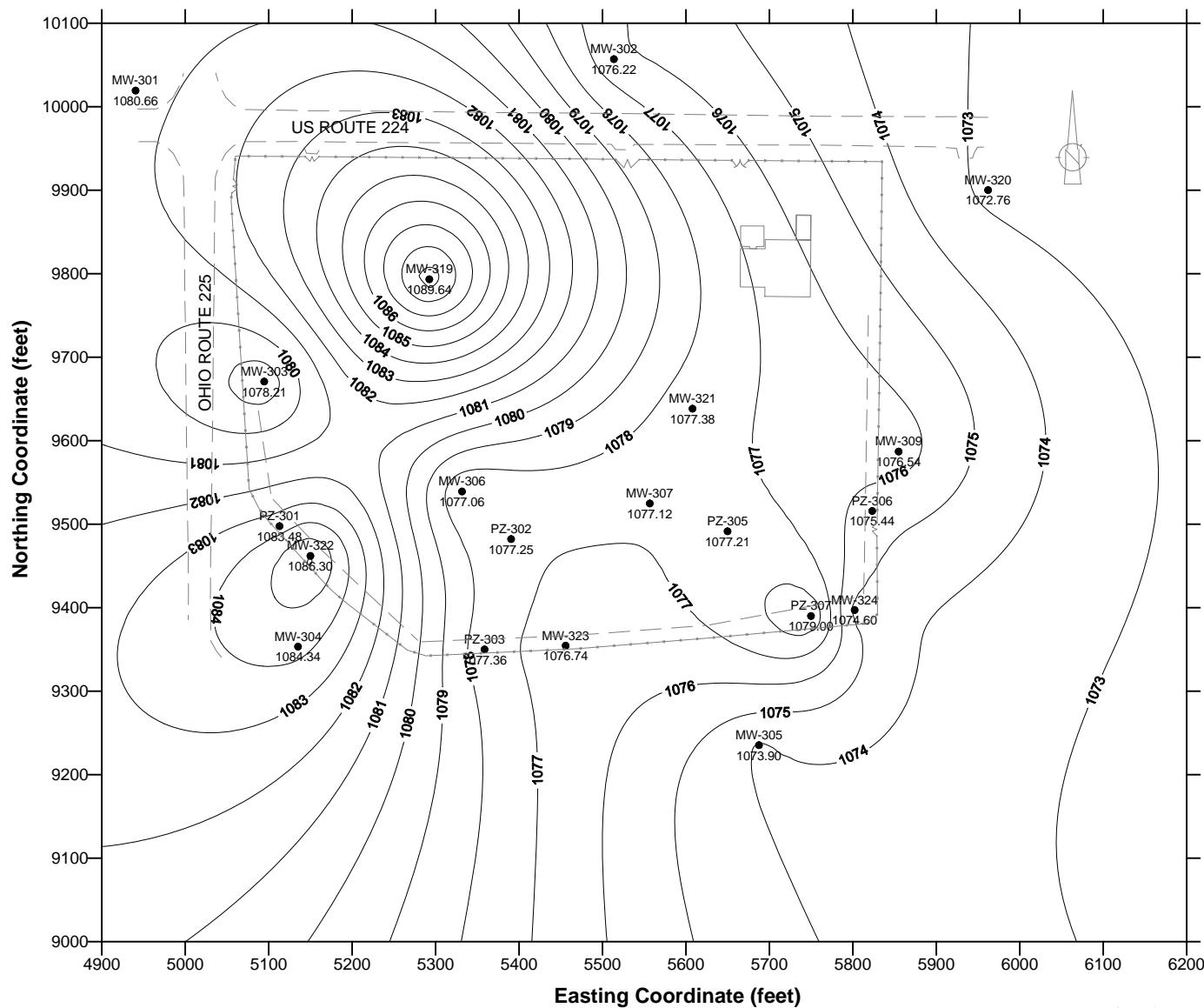
GROUNDWATER CONTOURS
UPPER INTERMEDIATE UNIT -- APRIL 15, 2008
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio





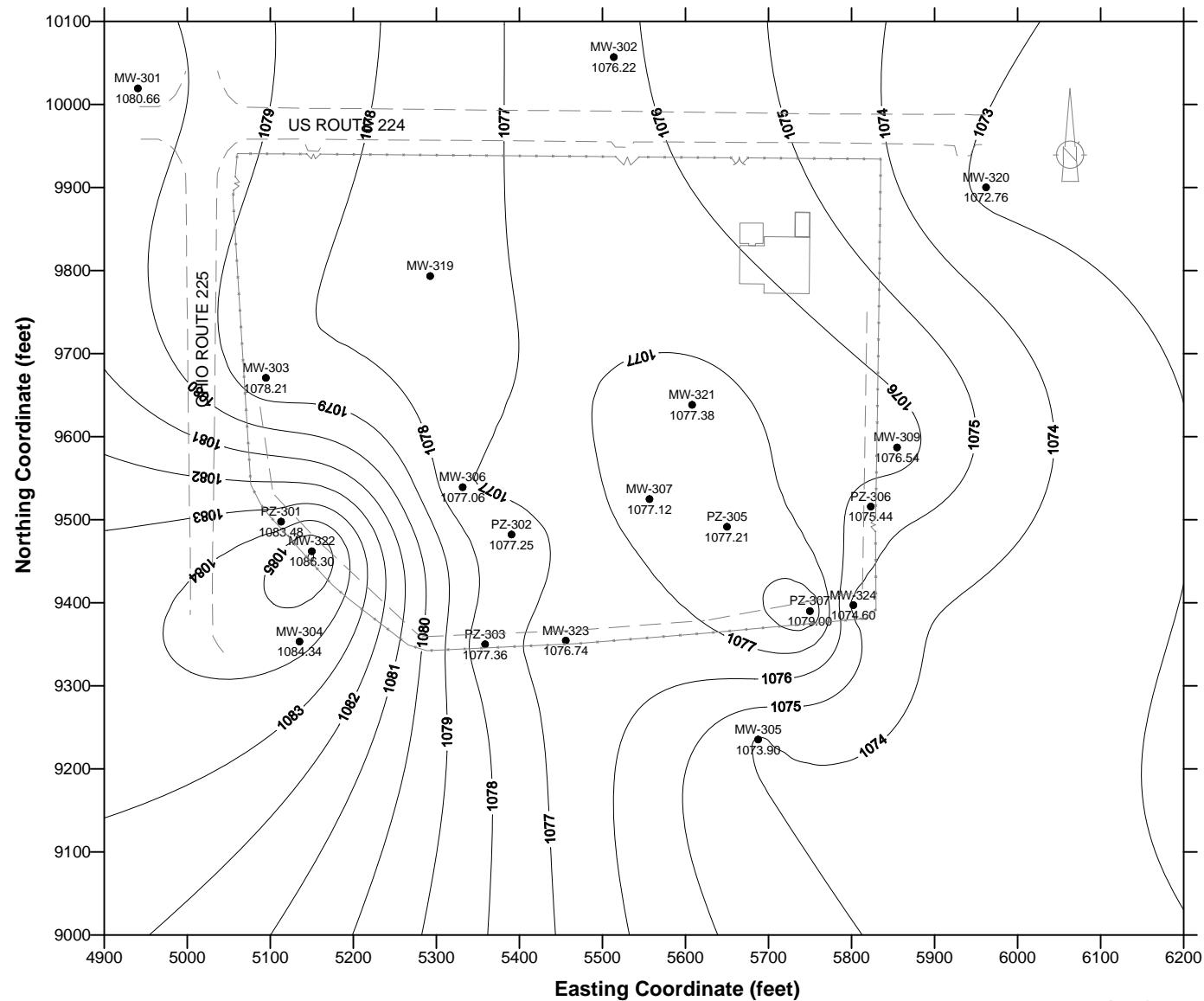
GROUNDWATER CONTOURS
UPPER INTERMEDIATE UNIT (w/o MW-206) -- APRIL 15, 2008
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio





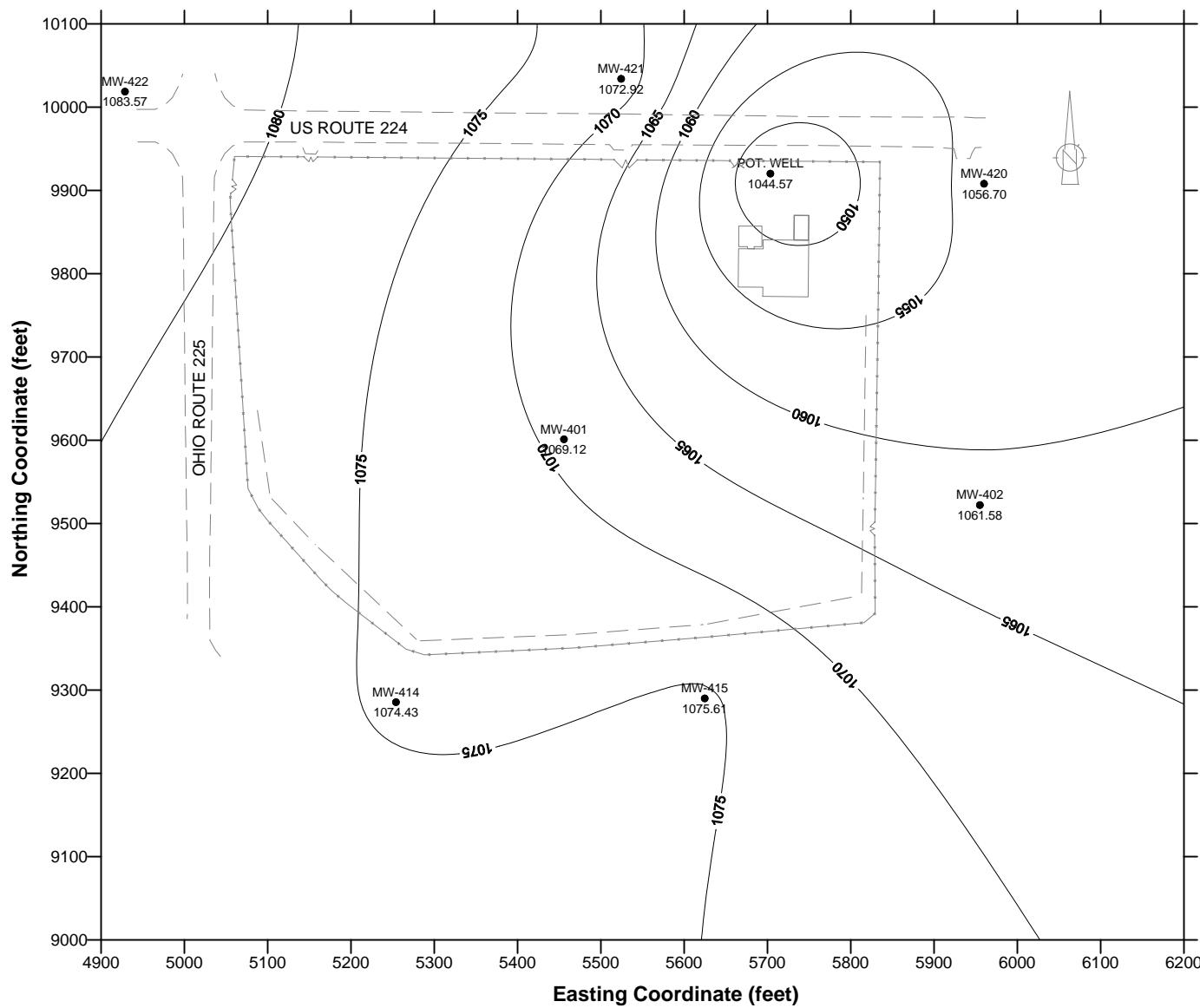
GROUNDWATER CONTOURS
LOWER INTERMEDIATE UNIT -- APRIL 15, 2008
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio





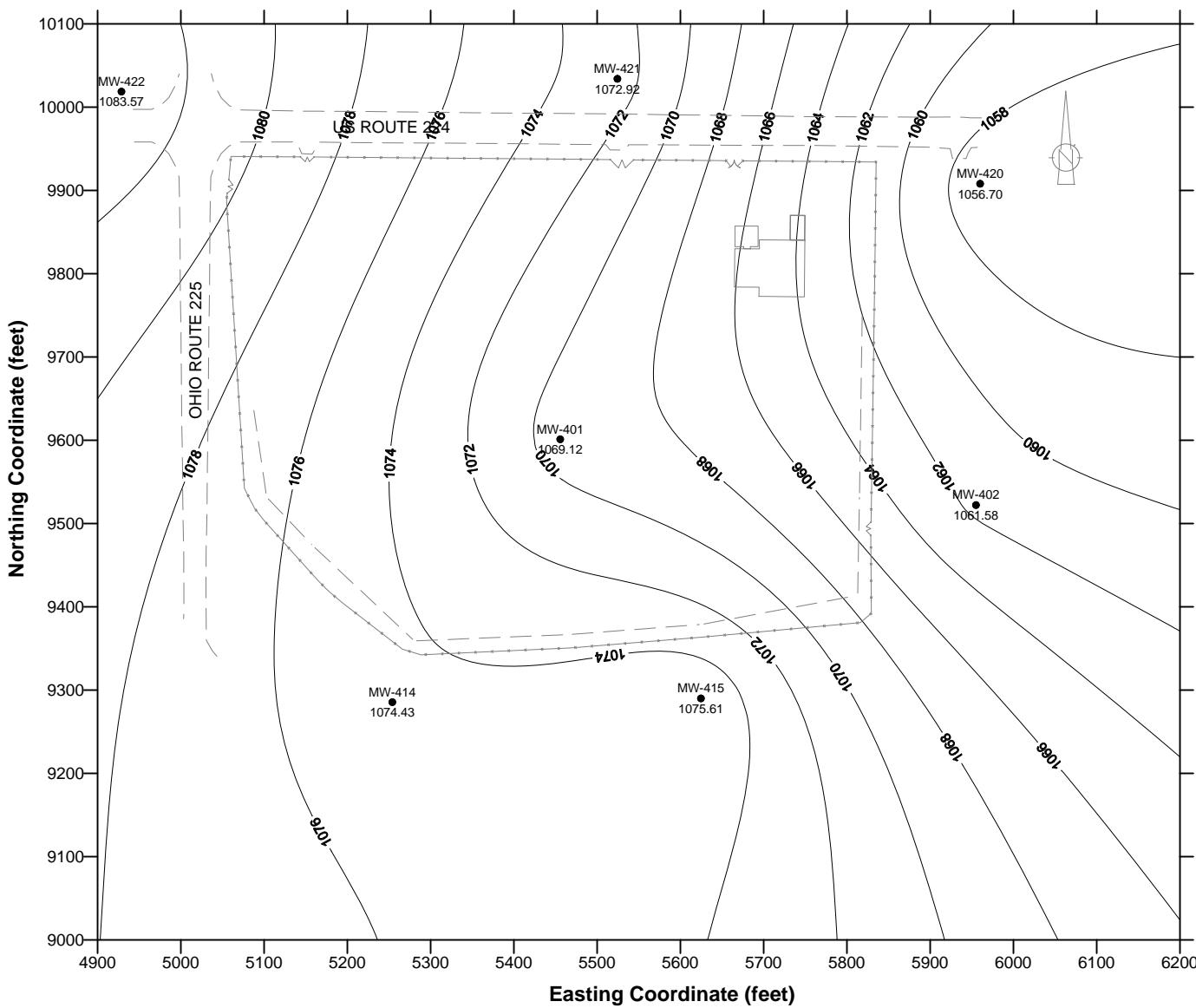
GROUNDWATER CONTOURS
LOWER INTERMEDIATE UNIT -- APRIL 15, 2008
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio





GROUNDWATER CONTOURS
UPPER SHARON UNIT -- APRIL 15, 2008
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio





GROUNDWATER CONTOURS
UPPER SHARON UNIT (w/o POTABLE WELL) -- APRIL 15, 2008
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio



